

## PROCEEDINGS OF THE CLUB

MEETING OF OCTOBER 15, 1930

The meeting was called to order at the New York Botanical Garden at 3:30 P.M. by President Sinnott. Minutes of the meeting of October 7 were read and approved. Thirty-one members were present.

The following people were unanimously elected to membership in the club: Miss Minna Koch, Hunter College, New York City; Miss Kathleen Muchemore, 596 East Nineteenth Street, Brooklyn, New York; and Miss Dorothy Meier, Box 59, Johnson Hall, Columbia University, New York City.

Professor Edmund W. Sinnott gave a talk on "Fruit Shape Inheritance in *Cucurbita*."

He has inbred a large number of strains of *Cucurbita pepo* for the past fifteen years and has about thirty lines which are essentially homozygous. During the past few years he has paid particular attention to the inheritance of fruit shape as shown by the results of crosses between various of these pure lines. The common disc of "scallop" type of fruit, very much wider than long, has been crossed with several types of spherical fruits. In every case, the disc type is dominant in the  $F_1$ . The  $F_2$  shows approximately  $3/4$  disc to  $1/4$  sphere, thus indicating that the difference between these two fruit shapes is due to a single mendelian factor.

In crosses between two spherical fruited lines of different ancestry, the  $F_1$  was found to be all disc fruited, and in the  $F_2$  there appeared  $9/16$  disc,  $6/16$  sphere and  $1/16$  elongate fruit. This was explained as due to the operation of two flattening factors, each of which when alone produced a spherical fruit. When both were present together in a plant, their effect was accumulated, resulting in a disc shape. When both were absent, the double recessive elongate type appeared. Further evidence was presented showing that in addition to these and other flattening factors, there are operative factors which tend to elongate the fruit, thus acting in an exactly opposite direction to the flatteners. The concept is developed that fruit shape is determined by the balance or equilibrium between factors for flattening and factors for elongation. All of these seem to be inherited in a simple mendel-

ian fashion, and probably operate in some way to control growth correlations.

Meeting adjourned at 4:45 P.M.

Respectfully submitted,

FORMAN T. McLEAN

*Secretary*

NOVEMBER 19, 1930

The meeting was called to order at the New York Botanical Garden at 3:30 P.M., by President Sinnott. Minutes of the meeting of October 15 were read and approved. Thirty members were present.

The resignations of Miss Rebecca Ornstein and Miss Laura B. Broomall were accepted with regret.

Brief reports by members on the International Botanical Congress were as follows:

Dr. Elmer D. Merrill stated:

The Fifth International Botanical Congress at Cambridge, England, under the presidency of Professor A. C. Steward of Cambridge University, August 16-23, 1930, was initiated by a formal reception to delegates and members of their families at the Imperial Institute in London on Friday evening, August 13. The following morning a special train took the delegates to Cambridge, where the Congress officially convened on Monday morning, August 16.

The Congress was organized as follows: Bacteriology, Prof. R. E. Buchanan, Iowa State College, president; Phytogeography and Ecology, Prof. H. C. Cowles, University of Chicago, president; Genetics and Cytology, Prof. O. Rosenberg, Botaniska Institutet, Stockholm, president; Morphology and Anatomy, Prof. J. C. Schoute, Gröningen, president; Mycology and Plant Pathology, Prof. L. R. Jones, University of Wisconsin, president; Plant Physiology, Dr. F. F. Blackman, Cambridge University, president; Paleobotany, Dr. D. H. Scott, Basingstoke, president; Taxonomy and Nomenclature, Prof. L. Diels, Berlin, president.

The scope of this paper does not permit a detailed consideration of the numerous and important papers that were presented before the various sections of the Congress. Abstracts of these communications were published in advance of the Congress.

forming a book of 327 pages, copies of which were supplied to all delegates. Provision was made for the ultimate publication of the full proceedings, and the papers presented at the Congress are now in the hands of the editorial committee.

The executive committee of British botanists, charged with making detailed arrangements for the Congress, is to be congratulated on the excellence of their program, and the manner in which the numerous items were handled. The efficiency of this committee added greatly to the pleasure and convenience of the numerous overseas delegates.

All meetings were held in the lecture rooms and laboratories of Cambridge University; and the majority of the delegates were housed in the various colleges of the University. Because of the most attractive surrounding, the ample space for conferences, exhibits, etc., and the close proximity of the various buildings, the numerous delegates who were fortunately able to attend the Congress will long remember the pleasant associations there formed; and all keenly appreciated the whole-hearted hospitality and the numerous courtesies extended to them during their stay in Cambridge and in England.

Various important excursions were arranged for visiting delegates, before, during, and after the Congress. These included a pilgrimage to Halesworth Church to attend the dedication ceremonies of a memorial tablet to Sir Joseph Dalton Hooker, born at Halesworth, and Sir William Joseph Hooker; to the English beech woods in West Sussex, Cheltern Hills, Cotswold Hills, and the Wye Valley; to Blakeney Point and Scolt Head to inspect their maritime vegetation; to Wicken Fen to examine the swamp vegetation; special field excursions for plant pathologists; excursions to the Rothamsted Experiment Station, Harpenden; the John Innes Horticultural Institution, Weston; Messrs. Sutton and Sons Seed Establishment and Trial Grounds, Reading and Slough; Messrs. James Carter and Company Seed Establishment and Trial Grounds, Raynes Park. Through the courtesy of the President and Council of the Royal Horticultural Society, the Garden of this society at Wisley was open to delegates; the same courteous arrangement was made by the trustees of the Chelsea Physic Garden. A special exhibit of material of historic interest was arranged in the Department of Botany, British Museum (Natural History). At Kew a personally con-

ducted tour through the Royal Botanic Gardens was provided, with an *al fresco* luncheon for visiting delegates. A special exhibition of Linneana was arranged at the rooms of the Linnean Society, Burlington House, London.

The Fourth International Botanical Congress held at Cornell University, Ithaca, New York, in 1925 had charged the 1930 Congress with the difficult and complicated task of revising the International Code of Botanical Nomenclature. This was unquestionably the most important single project that came before the Congress. The International committee, under the leadership of Dr. John Briquet of Geneva, had carefully assembled and collated the data that were to be presented for discussions, these data being supplemented by a 200 page document consisting of proposals by British botanists. The "*Recueil synoptique*" and "*Avis préalable*," prepared by Dr. Briquet and his colleagues, contained all of the suggested modifications of the International Code that had been submitted by botanists from all countries; in parallel columns were given the original text of the 1905 and 1910 rules, together with the suggested changes, and with the recommendation of the international committee.

With these carefully and critically prepared documents, the Section on Nomenclature, under the chairmanship of E. D. Merrill, proceeded to a consideration of details. Practically all of the recommendations of the central committee were approved there being at times a very lively discussion from the floor. As discussions, amendments, motions etc., were in English, French, and German it was by no means an easy task to follow all details, although important items were interpreted by the several secretaries, Dr. Harms of Berlin in German and Dr. Briquet of Geneva in French. During the first two days progress was relatively slow; but real progress was made on the third day by disposing of all the minor matters on a single motion, thus leaving time to consider the few really important, and more or less controversial items. The proposed amendments of the International Code had to do largely with unifying, as far as possible, the divergencies in this code and the so-called American Code.

Few formal votes were taken, most of the motions, after discussion, being disposed of by show of hands. In reference to important controversial matters the proportions of the vote as

between yes and no were impressive. Thus, in reference to required Latin diagnoses for new species proposed from January 1932, the formal vote was yes, 371; no, 24; the original spelling of generic and specific names was maintained by a vote of 342 to 21. An adoption of the rule, the contention of many American botanists, that a validly published homonym invalidates the use of the same specific name for another species, was carried by yes, 261; no, 111; the adoption of the principle of types of standard species for genera; and the confirmation and extension of the principle of *nomina generica conservanda* were carried by equally impressive majorities, the latter being practically unanimous. A proposition to make the year 1753 the beginning date for binomials in all groups of plants was lost, the vote being 158, yes; 239, no.

One of the final actions of the section was to appoint a large international committee, having in its membership one or more representatives in each country, to consider interim problems in relation to the international rules, the details to be handled by a small executive committee. In addition to the appointment of the international committee to consider problems of nomenclature, other important committees were appointed, including one to standardize the terminology used in ecology; one to compile and publish an international botanical address book; and one to standardize descriptive terms used in systematic botany.

At the final plenary session of the Congress, the invitation of the Netherlands to hold the next congress at Amsterdam in 1935 was accepted.

The Fifth International Botanical Congress, was unquestionably, the largest and most important gathering of its kind yet held. In excess of fifty countries were represented by about 1,200 official delegates. Naturally, Great Britain was particularly well represented; but there were about 300 delegates in attendance from the United States. Other important countries had large contingents; and most of the smaller commonwealths had representatives present. The Congress was truly international in all respects, its attendance including many of the outstanding botanists of the entire world. The entire Congress was pervaded by a pronounced spirit of international good will, which was particularly noticeable in the long and complicated

discussions appertaining to the problems of nomenclature; here many divergent opinions were held; yet all present were inspired by the desire to facilitate the proceedings; each was willing to give and take; and all who took part in the discussions, or who merely attended in order to familiarize themselves with the complicated questions under discussion, were impressed with the desirability of coming to an understanding that would be truly international as well as acceptable to the majority of botanists in all fields of endeavor.

Dr. F. E. Denny, Dr. R. P. Wodehouse and Dr. A. L. Gunderson also gave short talks on their stay at the International Botanical Congress.

Meeting adjourned at 4:45 P.M.

Respectfully submitted,

FORMAN T. MCLEAN

*Secretary*

#### MEETING OF DECEMBER 2, 1930

The meeting was called to order at The American Museum of Natural History at 8:15 P.M. by President Sinnott. Forty-five members were present.

Dr. Henry Knute Svenson of the Brooklyn Botanic Garden gave a talk on the "Vegetation of the Galapagos Islands and Cocos Island." An account of his talk is published in the Brooklyn Botanic Garden Record, Volume 19, No. 6, November, 1930.

Meeting adjourned at 9:45 P.M. for refreshments which were served by the refreshment committee.

Respectfully submitted,

FORMAN T. MCLEAN

*Secretary*